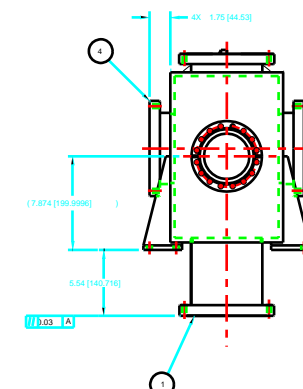
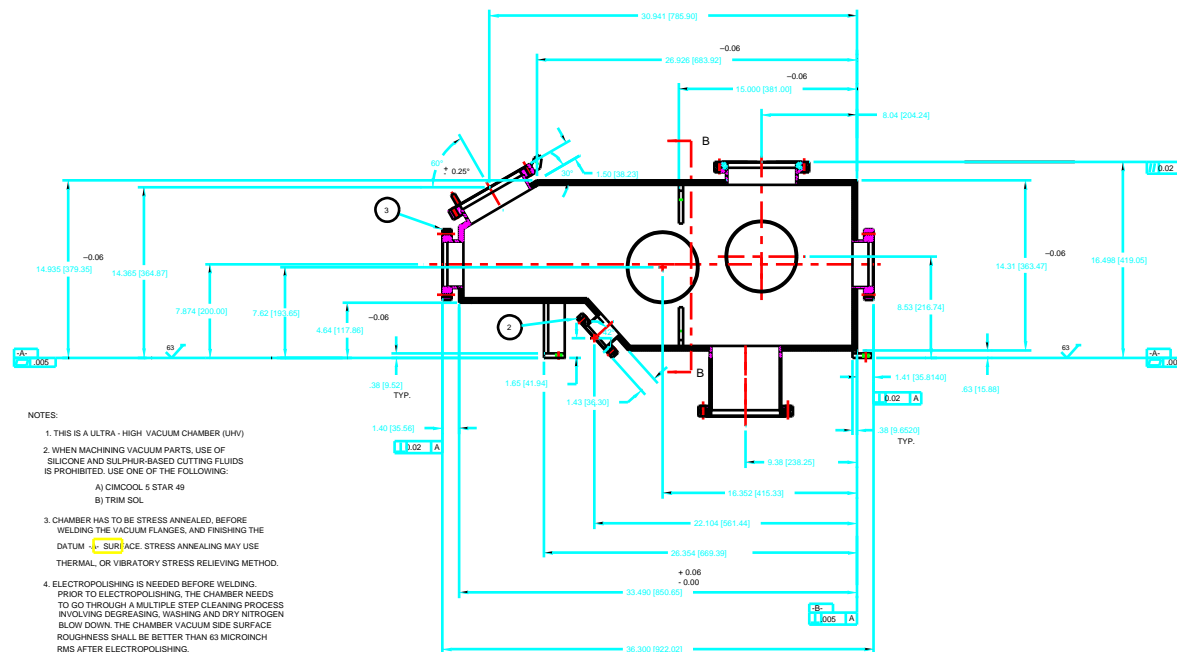
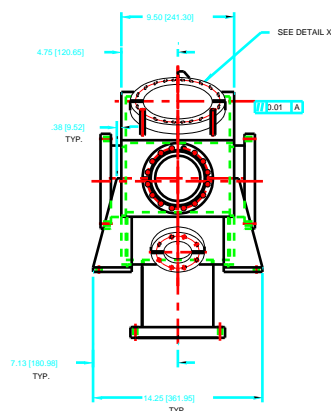
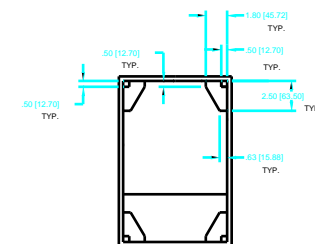
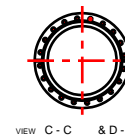
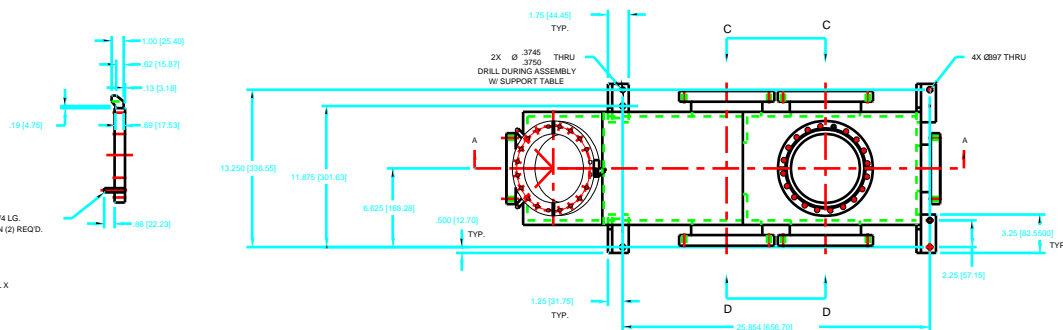


DETAIL X



- NOTES:

1. THIS IS A ULTRA - HIGH VACUUM CHAMBER (UHV)
2. WHEN MACHINING VACUUM PARTS, USE OF SILICONE AND SULPHUR-BASED CUTTING FLUIDS IS PROHIBITED. USE ONE OF THE FOLLOWING:
 - a) CIMCOOL 5 STAR #49
 - b) TRIM SOL
3. CHAMBER HAS TO BE STRESS ANNEALED, BEFORE WELDING THE VACUUM FLANGES, AND FINISHING THE DATUM - **C SURFACE** STRESS ANNEALING MAY USE THERMAL, OR VIBRATORY STRESS RELIEVING METHOD
4. ELECTROPOISHING IS NEEDED BEFORE WELDING. PRIOR TO ELECTROPOISHING, THE CHAMBER NEEDS TO BE TREATED WITH A SPECIAL CLEANING PROGRAM INVOLVING DEGREASING, WASHING AND DRY TREATMENT. THE CHAMBER VACUUM SIDE SURFACE ROUGHNESS SHALL BE BETTER THAN 63 MICROMIN RMS AFTER ELECTROPOISHING.
5. WELDS SHALL BE JOBS TUNGSTEN ARC (GTJ) OR ARGON TUNGSTEN ARC GAS (TIG) ON VACUUM SIDE OF JANTS
6. VACUUM CHAMBER SHALL BE LEAK TESTED USING A MASS SPECTROMETER WITH MINIMUM SENSITIVITY FOR HELIUM OF 2×10^{-10} STANDARD CCSECF PER LEAK MEASURED. SUCH AS:
 - ALCATEL ASM-1107C
 - VARIAN NCR 925 OR 936
 - VEECO MS-15, MS-90 OR MS-18
 - Du Pont CE 24-120B
7. CALIBRATION OF THE LEAK DETECTOR SENSITIVITY SHALL BE PERFORMED JUST PRIOR TO TESTING.
8. FINAL TEST WILL CONSIST OF SURROUNDING THE CHAMBER BAGGING WITH HELIUM. THE CHAMBER WILL BE RELEASED TO THE DEFLECTION IN THE MOST SENSITIVE RANGE OF THE LEAK DETECTOR IS SENSED WITHIN 1 MIN.
9. IF CHAMBER SIDES FRM FORMED PLATES, THE MAXIMUM DEFLECTION SHALL BE LESS THAN 0.25 INCH INSIDE.
10. DIMENSIONS IN [] ARE 1/16 MILIMETERS

[illegible]